PEPTIDES

VOLUME 3 NUMBER 1 JANUARY/FEBRUARY 1982

CONTENTS

Neuropeptides and thermoregulation: The interactions of bombesin, neurotensin, TRH, somatostatin, naloxone and prostaglandins. MORLEY, J. E., A. S. LEVINE, M. M. OKEN, M. GRACE and J. KNEIP 1

MSH/ACTH$_{4-10}$: A tool to differentiate between the role of vasopressin in memory consolidation or retrieval processes. WIMERSMA GREIDANUS, TJ.B. VAN 7

Des-acetyl MSH and γ-MSH act as partial agonists to α-MSH on the *Anolis* melanophore. McCORMACK, A. M., R. J. CARTER, A. J. THODY and S. SHUSTER 13

The effect of calcitonin on food intake in diabetic mice. MORLEY, J. E., A. S. LEVINE, D. M. BROWN and B. S. HANDWERGER 17

Degradation of Met-enkephalin by extracts of various regions of the human brain: Effects of antipsychotics and narcotics *in vitro*. JAKUBOVIC, A. 21

Substance P fails to mimic vagally mediated nonadrenergic bronchodilation. DIAMOND, L., J. L. SZAREK and M. N. GILLESPIE 27

Relationship of yeast-injection induced changes in brain Met-enkephalin and analgesia. CHIPKIN, R. E., W. BILLARD, L. C. IORIO and A. BARNETT 31

Radioimmunoassay of CRF-like material in rat hypothalamus. MOLDOW, R. L. and A. J. FISCHMAN 37

Dynorphin (1–13): Analgesia, hypothermia, cross-tolerance with morphine and β-endorphin. PETRIE, E. C., S. T. TIFFANY, T. B. BAKER and J. L. DAHL 41

Intrathecal substance P and somatostatin in rats: Behaviors indicative of sensation. SEYBOLD, V. S., J. L. K. HYLDEN and G. L. WILCOX 49

Characterization and subcellular localization of GnRH analog binding in rat brain. LISCOVITCH, M. and Y. KOCH 55

Bombesin reduces food intake of normal and hypothalamically obese rats and lowers body weight when given chronically. WEST, D. B., R. H. WILLIAMS, D. J. BRAGET and S. C. WOODS 61

Distribution of an enzyme which acetylates α-melanocyte stimulating hormone in rat brain and pituitary gland and effects of arcuate nucleus lesion. O'DONOHUE, T. L. and M. C. CHAPPELL . 69

Development of enkephalin in the rectum and ganglion of Remak of the chick. EPSTEIN, M. L. and J. L. DAHL 77

Modulation of spontaneous seizures in the Mongolian gerbil: Effects of β-endorphin. BAJOREK, J. G. and P. LOMAX 83

BRIEF COMMUNICATIONS

Contribution of the amino terminal tyrosine to the interaction of γ-endorphin with opiate receptors. PUETT, D., R. G. HAMMONDS, JR., and N. LING 87

Circulating immunoreactivities of gastrin, glucagon and VIP after jejuno-ileal bypass. KULNEFF-HERLIN, A. E. A., P. M. HERLIN, M. CHEN, Z. GIMMON, R. F. MURPHY and S. N. JOFFE 91

PEPTIDES

VOLUME 3 NUMBER 2 MARCH/APRIL 1982

CONTENTS

In vivo biosynthesis of cholecystokinin in hog cerebral cortex. GOLTERMANN, N. R. 101

Modification of d-amphetamine- or chlorpromazine-induced hypothermia by β-endorphin, MIF-I and α-MSH: Mediation by the dopaminergic system. YEHUDA, S. and R. L. CARASSO 105

In vitro potentiation of the activity of synthetic ovine corticotropin-releasing factor by arginine vasopressin. TURKELSON, C. M., C. R. THOMAS, A. ARIMURA, D. CHANG, J. K. CHANG and M. SHIMIZU 111

Distribution and immunochemical character of neurotensin-like material in representative vertebrates and invertebrates: Apparent conservation of the COOH-terminal region during evolution. CARRAWAY, R., S. E. RUANE and H.-R. KIM 115

Neuropeptides and cerebral electric activity in rabbits. TARTARA, A., P. BO and F. SAVOLDI 125

Lack of CCK-like pancreatic stimulation by intraduodenal amino acids in the anesthetized cat. JOHNSON, C., R. JEANNINGROS and H. SARLES 129

Cholecystokinin octapeptide decreases intake of solid food in man. STACHER, G., H. STEINRINGER, G. SCHMIERER, C. SCHNEIDER and S. WINKLEHNER 133

Solid-phase synthesis and biological activities of gastrointestinal hormones: Secretin and motilin. COY, D. H., E. J. COY, K.-Y. LEE and W. Y. CHEY 137

Hypothalamic CRF-like immunoreactivity in the rat after hypophysectomy or adrenalectomy. MOLDOW, R. L. and A. J. FISCHMAN 143

Extrahypothalamic distribution of CRF-like immunoreactivity in the rat brain. FISCHMAN, A. J. and R. L. MOLDOW 149

A method for studying synaptosomal release of neurotransmitter candidates, as evaluated by studies on cortical cholecystokinin octapeptide release. KLAFF, L. J., A. M. HUDSON, M. PAUL and R. P. MILLAR 155

Pancreatic glucagon fails to inhibit sham feeding in the rat. GEARY, N. and G. P. SMITH ... 163

Isoenzyme specific inhibition of the reactivation of in vitro dissociated lactic dehydrogenase isoenzymes by two different peptides isolated from human liver. DÖBELI, H., H. J. TOBLER and G. A. SCHOENENBERGER 167

Effect of glucagon antiserum on somatostatin, glucagon and insulin release from the isolated perfused rat pancreas. SEINO, S., H. SAKURAI, H. KUZUYA, K. TSUDA, K. TANIGAWA, K. TAKAHASHI, Y. SEINO and H. IMURA 175

Immunocytochemical localization of CRF in the ovine hypothalamus. PAULL, W. K., J. SCHÖLER, A. ARIMURA, C. A. MEYERS, J. K. CHANG, D. CHANG and M. SHIMIZU .. 183

Raman studies on bradykinin and a cyclic bradykinin. FOX, J. W., R. J. VAVREK, A. T. TU and J. M. STEWART 193

BRIEF COMMUNICATIONS

A new met-enkephalin analogue suppresses plasma vasopressin in man. ZERBE, R. L., D. P. HENRY and G. L. ROBERTSON 199

Effects of conditioned fear and environmental novelty on plasma β-endorphin in the rat. SCALLET, A. C. 203

PEPTIDES

VOLUME 3 NUMBER 3 MAY/JUNE 1982

CONTENTS

Introduction. SANDMAN, C. A. and L. H. MILLER 209

Is there an earlier phylogenetic precursor that is common to both the nervous and endocrine systems? LE ROITH, D., J. SHILOACH and J. ROTH 211

Recombinant DNA methods in neuroendocrinology: New answers to old questions. EIDEN, L. E. 217

Bioassays in modern peptide research. QUIRION, R. 223

The potential use of cultured cells to detect non-neuronal targets of neuropeptide action. PRUSS, R. M. 231

Prevention of damage in acute spinal cord injury by peptides and pharmacologic agents. NAFTCHI, N. E. and J. F. GENNARO 235

Studies on synaptic transmission in spinal cord cultures: A comparison of postsynaptic actions of classical neurotransmitter with the peptides. PUN, R. Y. K. 249

Immunogold staining procedure for the localisation of regulatory peptides. VARNDELL, I. M., F. J. TAPIA, L. PROBERT, A. M. J. BUCHAN, J. GU, J. DE MEY, S. R. BLOOM and J. M. POLAK 259

Synaptology of three peptidergic neuron types in the central nucleus of the rat amygdala. GRAY, T. S., M. D. CASSELL and T. H. WILLIAMS 273

Computer-assisted image analysis of the distributions of peptidergic terminals in the central nucleus of the amygdala: A preliminary study. CASSELL, M. D., N. J. MANKOVICH, T. S. GRAY and T. H. WILLIAMS 283

Transmitter of the raphe-spinal complex: Immunocytochemical studies. BOWKER, R. M., K. N. WESTLUND, M. C. SULLIVAN, J. F. WILBER and J. D. COULTER 291

Neuropeptides in the median eminence: Their sources and destinations. PALKOVITS, M. 299

The median eminence as a model to study presynaptic regulation of neural peptide release. NEGRO-VILAR, A. 305

Role of central epinephrine in regulation of anterior pituitary hormone secretion. TERRY, L. C., W. R. CROWLEY, C. LYNCH, C. LONGSERRE and M. D. JOHNSON 311

Correlated cholinomimetic-stimulated beta-endorphin and prolactin release in humans. RISCH, S. C., D. S. JANOWSKY, L. J. SIEVER, L. L. JUDD, J. L. RAUSCH, L. Y. HUEY, K. A. BECKMAN, R. M. COHEN and D. L. MURPHY 319

Two chemically and immunologically distinct forms of luteinizing hormone-releasing hormone are differentially expressed in frog neural tissues. EIDEN, L. E., E. LOUMAYE, N. SHERWOOD and R. L. ESKAY 323

Conformational and dynamic considerations in peptide structure-function studies. HRUBY, V. J. and H. I. MOSBERG 329

Structure function analysis of an arthropod peptide hormone: Proctolin and synthetic analogues compared on the cockroach hindgut receptor. SULLIVAN, R. E. and R. W. NEWCOMB 337

400 MHz NMR study on the C-terminal fragment 21–28 of vasoactive intestinal peptide. FOURNIER, A., J. K. SAUNDERS and S. ST-PIERRE 345

The opiomelanotropinergic neuronal and endocrine systems. O'DONOHUE, T. L. and D. M. DORSA 353

Pro-opiocortin processing in the pituitary: A model for neuropeptide biosynthesis. LOH, Y. P., H. A. GRITSCH and T.-L. CHANG 397

Evidence for an opiomelanotropin acetyltransferase in the rat pituitary neurointermediate lobe. CHAPPELL, M. C., Y. P. LOH and T. L. O'DONOHUE 405

Central nervous system and peripheral effects of ACTH, MSH, and related neuropeptides. BECKWITH, B. E. and C. A. SANDMAN 411

Endorphinergic and α-noradrenergic systems in the paraventricular nucleus: Effects on eating behavior. LEIBOWITZ, S. F. and L. HOR 421

Changes in α-melanotropin in discrete brain areas of isolated aggressive mice. TIZABI, Y., T. L. O'DONOHUE and D. M. JACOBOWITZ 429

Attenuation of morphine analgesia by α-MSH, MIF-I, melatonin and naloxone in the rat. DATTA, P. C., C. A. SANDMAN and F. K. HOEHLER 433

Peptide influences on the development and regeneration of motor performance. SAINT-CÔME, C., G. R. ACKER and F. L. STRAND 439

Proteolysis of β-endorphin in brain tissue. BURBACH, J. P. H. and E. R. DE KLOET 451

Gamma-endorphin-like peptides in pituitary tissue: Evidence for their existence *in vivo*. DORSA, D. M., M. B. CHAPMAN and D. G. BASKIN 455

Brain endopeptidase generates enkephalin from striatal precursors. KNIGHT, M., C. PLOTKIN and C. A. TAMMINGA 461

[Met^5]-enkephalin-like peptides of the adrenal medulla: Release by nerve stimulation and functional implications. HANBAUER, I., G. D. KELLY, L. SAIANI and H. Y. T. YANG ... 469

Enkephalins modulate the responsiveness of rat atria *in vitro* to norepinephrine. EIDEN, L. E. and J. A. RUTH 475

Neuroanatomical localization of substance P: Implications for central cardiovascular control. HELKE, C. J. 479

Peptide and amine modulation of the *Limulus* heart: A simple neural network and its target tissue. WATSON, W. H., III and G. J. AUGUSTINE 485

Mineralocorticoids and cerebral angiotensin may act together to produce sodium appetite. EPSTEIN, A. N. 493

On the separation of functions mediated by the AV3V region. LIND, R. W. and A. K. JOHNSON 495

The subfornical organ's neural connections and their role in water balance. MISELIS, R. R. ... 501

Two possible actions for circulating angiotensin II in the control of vasopressin release. MITCHELL, L. D., K. BARRON, M. J. BRODY and A. K. JOHNSON 503

PEPTIDES

Vasopressin: An essential pressor factor for blood pressure recovery following hemorrhage. ZERBE, R. L., M. A. BAYORH and G. FEUERSTEIN 509

Central neurohypophyseal peptide pathways: Interactions with endocrine and other autonomic functions. PITTMAN, Q. J., W. L. VEALE and K. LEDERIS 515

Effects of desmopressin acetate (DDAVP) on the learning of a brightness discrimination. COUK, D. I. and B. E. BECKWITH 521

Vasopressin's effects on acquisition and extinction of conditioned avoidance response to smoking. EHRENSING, R. H., G. F. MICHELL and R. P. BAKER 527

Chromatographic characterization of gastrin/cholecystokinin peptides in bovine and porcine pituitary. BEINFELD, M. C. 531

The role of central and peripheral cholecystokinin in mediating appetitive behaviors. CRAWLEY, J. N., J. A. ROJAS-RAMIREZ and W. B. MENDELSON 535

Modulation of [^{3}H]-dopamine binding by cholecystokinin octapeptide (CCK-8). MURPHY, R. B. and D. I. SCHUSTER 539

Cholecystokinin octapeptide: Effects on the excitability of cultured spinal neurons. ROGAWSKI, M. A. 545

Gut peptides and food in the gut produce similar satiety effects. GIBBS, J. and G. P. SMITH . 553

Pharmacology and neurochemistry of bombesin-like peptides. MOODY, T. W., J. N. CRAWLEY and R. T. JENSEN 559

Secretin in the rat hypothalamo-pituitary system: Localization, identification and characterization. CHARLTON, C. G., T. L. O'DONOHUE, R. L. MILLER and D. M. JACOBOWITZ 565

Bovine pancreatic polypeptide-like immunoreactivity in brain and peripheral nervous system: Coexistence with catecholaminergic nerves. JACOBOWITZ, D. M. and J. A. OLSCHOWKA 569

Distribution and metabolism of Cyclo (His-Pro): A new member of the neuropeptide family. PRASAD, C., M. MORI, J. F. WILBER, W. PIERSON, J. PEGUES and A. JAYARAMAN . 591

PEPTIDES

VOLUME 3 NUMBER 4 JULY/AUGUST 1982

CONTENTS

Comparison of enkephalin and atropine in the inhibition of vagally stimulated gastric and pancreatic secretion and gastrin and pancreatic polypeptide release in dogs. KONTUREK, S. J., J. JAWOREK, W. BIELAŃSKI, M. CIESZKOWSKI, M. DOBRZAŃSKA and D. H. COY 601

Ceruletide decreases food intake in non-obese man. STACHER, G., H. STEINRINGER, G. SCHMIERER, C. SCHNEIDER and S. WINKLEHNER 607

Central antinociceptive effects of lysine-vasopressin and an analogue. KORDOWER, J. H., V. SIKORSZKY and R. J. BODNAR 613

Effects of CCK on gastrointestinal function in lean and obese Zucker rats. MOOS, A. B., C. L. McLAUGHLIN and C. A. BAILE 619

DSIP/DSIP-P and circadian motor activity of rats under continuous light. GRAF, M., H. CHRISTEN and G. A. SCHOENENBERGER 623

Vasopressin analog (DDAVP) facilitates concept learning in human males. BECKWITH, B. E., T. PETROS, S. KANAAN-BECKWITH, D. I. COUK, R. J. HAUG and C. RYAN 627

Angiotensin II antagonists versus drinking induced by bombesin or eledoisin in pigeons. DE CARO, G., M. MASSI, L. G. MICOSSI and M. PERFUMI 631

The stability and metabolism of intravenously administered neurotensin in the rat. ARONIN, N., R. E. CARRAWAY, C. F. FERRIS, R. A. HAMMER and S. E. LEEMAN 637

Structure-activity relationships of a pigment-dispersing crustacean neurohormone. RIEHM, J. P. and K. R. RAO 643

An analog of ACTH/MSH (4–9), ORG-2766, reduces cerebral uptake of morphine. GOLDMAN, H., D. KRASNEWICH, S. MURPHY and D. SCHNEIDER 649

Neurons containing α-melanocyte stimulating hormone and β-endorphin immunoreactivity in the cat hypothalamus. MICEVYCH, P. E. and R. P. ELDE 655

Morphine, β-endorphin and [D-Ala^2]Met-enkephalin inhibit oxytocin release by acetylcholine and suckling. HALDAR, J., D. L. HOFFMAN and E. A. ZIMMERMAN 663

Characteristics of thyrotropin releasing hormone (TRH) receptors in rat brain. OGAWA, N., Y. YAMAWAKI, H. KURODA, I. NUKINA, Z. OTA, M. FUJINO and N. YANAIHARA 669

Pineal mediation of the thermoregulatory and behavioral activating effects of β-endorphin. KAVALIERS, M. 679

Partial structure of a large canine cholecystokinin (CCK_{58}): Amino acid sequence. EYSSELEIN, V. E., J. R. REEVE, JR., J. E. SHIVELY, D. HAWKE and J. H. WALSH 687

Rat gastrin's amino acid sequence determined from the nucleotide sequence of the mRNA. SCHAFFER, M. H., K. L. AGARWAL and B. E. NOYES 693

Double-enkephalins—Synthesis, activity on guinea-pig ileum and analgesic effect. LIPKOWSKI, A. W., A. M. KONECKA and I. SROCZYŃSKA 697

Ceruletide, ceruletide analogues and cholecystokinin octapeptide (CCK-8): Effects on motor behaviour, hexobarbital-induced sleep and harman-induced convulsions. ZETLER, G. 701

Lack of effect of corticotropin releasing factor on hypothalamic dopamine and serotonin synthesis turnover rates in rats. VAN LOON, G. R., A. SHUM and D. HO 799

Presence of neurophysins I and II in the human pineal gland: Comparison with the content of neurohypophyseal hormones. GAUQUELIN, G., G. GEELEN, A. M. ALLEVARD-BURGUBURU, M. CELLIER, B. SEMPORE, F. LOUIS, J. J. LEGROS and C. GHARIB 805

Somatostatin antagonist analog increases GH, insulin, and glucagon release in the rat. FRIES, J. L., W. A. MURPHY, J. SUEIRAS-DIAZ and D. H. COY 811

Electrophysiological and contractile responses of canine atrial tissue to adrenocorticotropin. ZEILER, R. H., F. L. STRAND and N. EL-SHERIF 815

Molecular homology between prolactin and ovarian peptides: Evidence for physiologic modification of the parent molecule by the target. NOLIN, J. M. 823

Gastrin releasing peptide reduces meal size in rats. STEIN, L. J. and S. C. WOODS 833

Physiological changes in rat hypothalamic CRF: Circadian, stress and steroid suppression. MOLDOW, R. L. and A. J. FISCHMAN 837

Distribution of CRF-like immunoreactivity in the rabbit. FISCHMAN, A. J. and R. L. MOLDOW 841

Effects of an LHRH agonist and gonadotropins on testicular prolactin receptors. FISHBACK, J. B., A. ARIMURA and C. TURKELSON 845

A fragment of substance P with specific central activity: SP(1–7). STEWART, J. M., M. E. HALL, J. HARKINS, R. C. A. FREDERICKSON, L. TERENIUS, T. HÖKFELT and W. A. KRIVOY 851

Isolation and amino acid sequence of urotensin I, a vasoactive and ACTH-releasing neuropeptide from the carp (*Cyprinus carpio*) urophysis. ICHIKAWA, T., D. McMASTER, K. LEDERIS and H. KOBAYASHI 859

BRIEF COMMUNICATIONS

Metkephamid (Tyr-D-Ala-Gly-Phe-N(Me)Met-NH_2), a potent opioid peptide: Receptor binding and analgesic properties. BURKHARDT, C., R. C. A. FREDERICKSON and G. W. PASTERNAK 869

Pancreatic polypeptide causes diarrhea and weight loss in obese mice but not in lean littermates. MORDES, J. P., G. L. EASTWOOD, S. LOO and A. A. ROSSINI 873

ANNOUNCEMENTS 877

PEPTIDES

VOLUME 3 NUMBER 5 SEPTEMBER/OCTOBER 1982

CONTENTS

Polyphosphoinositide metabolism in rat brain: Effects of neuropeptides, neurotransmitters and cyclic nucleotides. JOLLES, J., C. J. VAN DONGEN, J. TEN HAAF and W. H. GISPEN . 709

Effects of MSH/ACTH 4–10 on the classically-conditioned rabbit nictitating membrane. SCHAEFFER, C. A., D. C. NATHANSON, C. F. CEGAVSKE and R. A. ROEMER 715

Small doses of intracarotid insulin do not lower plasma glucose in the rat. DAVIDSON, M. B. and G. ORGAN 721

Vasopressin analogues and spatial working memory in the 24-arm radial maze. BUREŠOVÁ, O. and J. ŠKOPKOVÁ 725

Amphetamine-induced locomotor behavior of mice is influenced by DSIP. GRAF, M., J. E. ZADINA and G. A. SCHOENENBERGER 729

In vivo synthesis of cholecystokinin in the rat cerebral cortex: Identification of COOH-terminal peptides with labeled amino acids. GOLTERMANN, N. R. 733

Eating, drinking and temperature responses to intracerebroventricular cholecystokinin in the chick. DENBOW, D. M. and R. D. MYERS 739

Synthetic peptides related to the dermorphins. II. Synthesis and biological activities of new analogues. MELCHIORRI, P., G. FALCONIERI ERSPAMER, V. ERSPAMER, A. GUGLIETTA, R. DE CASTIGLIONE, F. FAORO, G. PERSEO, S. PIANI and F. SANTANGELO 745

Ability of calcitonins to alter food and water consumption in the rat. TWERY, M. J., J. F. OBIE and C. W. COOPER 749

Autoradiographic distribution of [^{3}H]neurotensin receptors in rat brain: Visualization by tritium-sensitive film. QUIRION, R., P. GAUDREAU, S. ST-PIERRE, F. RIOUX and C. B. PERT 757

Localization of neurotensin binding sites in rat kidney. QUIRION, R., P. GAUDREAU, S. ST-PIERRE and F. RIOUX 765

Metkephamid effects on operant behavior. LEANDER, J. D. and C. R. WOOD 771

Peripheral administration of α-MSH reduces fever in older and younger rabbits. MURPHY, M. T. and J. M. LIPTON 775

Immunohistochemical and immunocytochemical localization of γ-melanocyte stimulating hormone (γ-MSH)-like immunoreactivity in human and rat hypothalamus. OSAMURA, R. Y., N. KOMATSU, K. WATANABE, Y. NAKAI, I. TANAKA and H. IMURA 781

Characterization of Leydig cell gonadotropin-releasing hormone binding sites utilizing radiolabeled agonist and antagonist. MILLAR, R. P., A. GARRITSEN and E. HAZUM 789

Antinociceptive potencies of β-casomorphin analogs as compared to their affinities towards μ and δ opiate receptor sites in brain and periphery. BRANTL, V., A. PFEIFFER, A. HERZ, A. HENSCHEN and F. LOTTSPEICH 793

The distribution of corticotropin releasing factor-like immunoreactive neurons in rat brain. OLSCHOWKA, J. A., T. L. O'DONOHUE, G. P. MUELLER and D. M. JACOBOWITZ 995

Enkephalin analogs and dermorphin in the conscious dog: Structure-activity relationships. SANDER, G. E. and T. D. GILES 1017

Cardiorespiratory effects of μ and δ opiate agonists following third or fourth ventricular injections. HOLADAY, J. W. 1023

μ Receptors and opioid cardiovascular effects in the NTS of rat. HASSEN, A. H., G. FEUERSTEIN and A. I. FADEN 1031

Endogenous opiates: 1981. OLSON, G. A., R. D. OLSON, A. J. KASTIN and D. H. COY 1039

BRIEF COMMUNICATION

Autoradiographic localization of substance P receptors using I^{125} substance P. SHULTS, C. W., R. QUIRION, R. JENSEN, T. MOODY, T. L. O'DONOHUE and T. N. CHASE 1073

INDEX TO VOLUME 3 1077

PEPTIDES

VOLUME 3 NUMBER 6 NOVEMBER/DECEMBER 1982

CONTENTS

Met-enkephalin effects on associations formed *in utero*. STICKROD, G., D. P. KIMBLE and W. P. SMOTHERMAN 881

Inhibition by L-Prolyl-L-Leucyl-Glycinamide (PLG) of Alpha-Melanocyte stimulating hormone release from hypothalamic slices. SCIMONELLI, T. and M. E. CELIS 885

Structure-activity studies with cholecystokinin on gastric secretion in the cat. HOLLAND, J., B. H. HIRST and B. SHAW 891

Vasoactive intestinal peptide (VIP) and peptide having n-terminal histidine and c-terminal isoleucine amide (PHI) stimulate adenylate cyclase activity in human heart membranes. TATON, G., P. CHATELAIN, M. DELHAYE, J. C. CAMUS, P. DE NEEF, M. WAELBROECK, K. TATEMOTO, P. ROBBERECHT and J. CHRISTOPHE 897

The effects of stress on central nervous system concentrations of the opioid peptide, dynorphin. MORLEY, J. E., M. K. ELSON, A. S. LEVINE and R. B. SHAFER 901

Lack of gastric inhibitory polypeptide (GIP) response to vagal stimulation in the rat. BERTHOUD, H. R., E. R. TRIMBLE and A. J. MOODY 907

Localization of multiple forms of ACTH- and β-endorphin-related substances in the pituitary of the reptile, *Anolis carolinensis*. DORES, R. M. 913

Evidence for a common precursor for αMSH and β-endorphin in the intermediate lobe of the pituitary of the reptile *Anolis carolinensis*. DORES, R. M. 925

Arginine vasotocin and renal function in the conscious dog. GILMORE, J. P., C. R. WESLEY, L. J. HUFFMAN and M. N. NEMEH 937

Dynorphin immunocytochemistry in the rat central nervous system. KHACHATURIAN, H., S. J. WATSON, M. E. LEWIS, D. COY, A. GOLDSTEIN and H. AKIL 941

Ceruletide increases threshold and tolerance to experimentally induced pain in healthy man. STACHER, G., H. STEINRINGER, G. SCHMIERER, S. WINKLEHNER and C. SCHNEIDER 955

Cerebral ventricular transport and uptake: Importance of CCK-mediated satiety. DELLA-FERA, M. A., C. A. BAILE and M. C. BEINFELD 963

Synthesis and biological activity of LH-RH antagonists modified in position 1. HORVATH, A., D. H. COY, M. V. NEKOLA, E. J. COY, A. V. SCHALLY and I. TEPLAN 969

Endogenous ligands for κ-opiate receptors. SCHULZ, R., M. WÜSTER and A. HERZ 973

Biologically active gastrin/CCK-related peptides in the stomach of a reptile, *Crocodylus niloticus*; identified and characterized by immunochemical methods. DIMALINE, R., B. B. RAWDON, S. BRANDES, A. ANDREW and J. P. LOVERIDGE 977

The enzyme stability of dehydro-enkephalins. SHIMOHIGASHI, Y., H.-C. CHEN and C. H. STAMMER 985

Production of antiserum to CRF associated with adrenal atrophy in a rabbit. MOLDOW, R. L. and A. J. FISCHMAN 989